Connections 2004

Statewide Plan for Technology in Idaho

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Every Child Learning Every Day

PREAMBLE

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We live in exciting times. Advances in educational technology are changing the landscape of teaching, and Idaho is poised to take full advantage of these changes. From the Internet, which connects our students and teachers to their peers around the world, to the compressed video conferencing that enables learners to take classes that would otherwise be unavailable, technology is advancing educational opportunities for all learners.

This technology plan is a blueprint for action. It sets the course for the future in educational technology. It was compiled from the comments and suggestions of hundreds of Idahoans, members of the Idaho Legislature and the Idaho Council for Technology in Learning, and students, teachers, administrators, and representatives of business and industry, and it reflects their keen appreciation for the potential of technology in education.

Technology is increasingly important to our classrooms and administrative offices. Idaho's schools depend on a continuing level of adequate funding to ensure that our students are among the best prepared in the nation. Those children deserve no less.

It is my pleasure to present **A Statewide Plan for Technology in Idaho Public Schools.**

Marilyn Howard

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State Superintendent of Public Instruction

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Executive Summary

Overview

The Statewide Plan for Technology in Idaho is based on six goals that reflect the essence of the No Child Left Behind Act of 2001. No Child Left Behind (NCLB) emphasizes the importance of the education students receive to ensure their participation and productivity in a future steeped in technological advancement.

No Child Left Behind

The No Child Left Behind (NCLB) Act of 2001 is based on four fundamental aspirations: stronger accountability for results, increased flexibility and local control, expanded options for parents, and an emphasis on teaching methods that have been proven to work. The Act's basic premise is to bridge the educational gap experienced by minority and disadvantaged students.

Statewide Technology Goals

The Statewide Technology Goals echo the spirit of the No Child Left Behind Act of 2001. The goals focus on (Technology) Integration, Technological Literacy, Professional Development, Collaboration, Technology Systems and Assessment, Evaluation and Publication. These goals are aimed at providing the means necessary for the educational success of each student.

Appendices

Idaho Council for Technology in Learning
Advisory Team
No Child Left Behind
Federal Content Requirements
Related State (Office of the State Board of Education - OSBE) and Federal (NCLB) Goals
Glossary

Format

Within this document, objectives, actions and performance measures were established for each of the six goal areas. As resources and priorities vary throughout the state, it is anticipated that action items will be implemented differently by school districts. As well, different levels of responsibility (State and District) are included and are indicated by the following notation:

S – State
D – District

VISION

Idaho envisions a model of education that ensures all students have the knowledge and skills to be successful life long learners. Idaho schools are places where students are motivated to learn by integrating technology into quality instruction. Families communities and educators collaborate to prepare knowledgeable citizens for the future.

MISSION

Idaho promotes a thorough system of education that models effective design, implementation and evaluation of educational technology to support student achievement.

STATEWIDE TECHNOLOGY GOALS

Integration

Improve the quality, effectiveness and relevance of instruction and learning by integrating technology with curriculum.

Technology Literacy

Assist every student to become technologically literate.

Professional Development

Promote professional development in technology use that enhances the educational process.

Collaboration

Promote the collaboration of schools, libraries, community members, state agencies, organizations, business and industry, post-secondary institutions, and public virtual learning environments to meet the needs of all learners.

Technology Systems

Create and maintain compatible and secure technology systems that enhance the efficient operation of schools.

Assessment, Evaluation and Publication

Assess, evaluate and publicize the effects of technology use by educators and students toward student learning and achievement.

INTEGRATION

Improve the quality, effectiveness and relevance of instruction and learning by integrating technology with curriculum.

Narrative

Technology is everywhere and imbedded in everything. Digitized white boards, wireless communications, electronic note pads, Personal Digital Assistants (PDAs), electronic chip ignitions, Global Positioning Systems (GPS), Internet video streaming, Word Processor software, Spreadsheet software, Presentation software, Student Data Management software, Curriculum Management software, and the list goes on and on. Technological knowledge is therefore, an important element in the success of students, educators and administrators. Integration of technology with curriculum is such a fundamental step; it is the precept on which the other five goals are based.

Objective A

Include technology integration sample applications and content knowledge and skills in the Idaho State Achievement Standards and Courses of Study.

Actions

- S - Integrate and align State technology standards with State content standards for students.
- S - Integrate State assessments for students' progress in meeting technology standards into, and align with, the State assessment of students' progress in meeting content standards.
- S - Include suggested activities for technology integration in Courses of Study guides.

Performance Measures

- S - State technology standards are integrated into and aligned with State content standards for students.
- S - State assessments for student's progress in meeting technology standards are integrated into and aligned with State assessment of students' progress in meeting content standards.
- S - Courses of Study guides include suggested activities for technology integration.

Data Preparation and Reporting

- S - Status of integration and alignment progress (based on rubric)
- S - Resulting effects of integration and alignment activities on student achievement (based on rubric)
- S - Number and description of updated Course of Study guides.

See Appendix D for Federal Content Requirements
See Appendix E for Related State (OSBE) and Federal (NCLB) Goals

Objective B

Identify innovative strategies and research-based best practices for integrating technology with curriculum and instruction.

Actions

- S, D - Develop and maintain resources apprising all K-12 personnel with innovative teaching/learning strategies supported by research-based instructional methods and practices. (e.g. web site, press releases, newsletter)
- S, D - Provide on-line access to technology-infused lesson plans, classroom examples, and other digital resources aligned to State Achievement Standards through vehicles such as state web sites and ISIMS, to increase educator's understanding of how to incorporate technology most appropriately and effectively into instruction.

- S, D - Collect and distribute examples of local best practices.
- S - Promote a statewide curriculum management system to support technology integration for student academic achievement.

Performance Measures

- S, D - K-12 personnel are continually apprised with innovative teaching and learning strategies supported by research-based instructional methods and practices, by means of web site, press releases, newsletter, etc.
- S, D - On-line access of resources designed to increase an educator's understanding of how to incorporate technology most appropriately and effectively into instruction is available (e.g. technology-infused lesson plans, classroom examples, and other digital resources aligned to the Idaho State Achievement Standards through vehicles such as state web sites and ISIMS).
- S, D - Best practices from local entities are collected, and distributed, via the Internet, etc.
- S - A statewide curriculum management system to support technology integration for student academic achievement is either a "work-in-process" or is implemented.

Data Preparation and Reporting

- S, D - Quantify the usage of the latest i.e. innovative in teaching/learning strategies supported by research-based instructional methods and practices by comparing circulated resources to accessed resources.
- S, D - Survey educators to ascertain their assessment of their understanding, and the ease regarding how to: appropriately and effectively incorporate technology into instruction.
- S, D - Number and description of best practices collected and distributed.
- S - Status of statewide curriculum management system implementation.

See Appendix D for Federal Content Requirements
See Appendix E for Related State (OSBE) and Federal (NCLB) Goals

Objective C

Promote the development of district curricula that incorporate innovative strategies and best practices for integrating technology with learning objectives.

Actions

- S, D - Integrate and align State technology standards into and with local curriculum guides for students.
- S, D - Integrate and align State assessments for students' progress in meeting technology standards into and with local assessments of students' progress in meeting curriculum standards.
- S, D - Include suggested activities to incorporate innovative strategies and best practices for integrating technology with Local curriculum guides.

Performance Measures

- S, D - State technology standards are integrated into and aligned with local curriculum guides for students.
- S, D - State assessments for student's progress in meeting technology standards are integrated into and aligned with local assessments of students' progress in meeting curriculum standards.
- S, D - Local curriculum guides and technology are integrated based on suggested innovative strategies and best practices.

Data Preparation and Reporting

- S, D - Status of integration and alignment progress (based on rubric).
- S, D - Resulting effects of integration and alignment activities on student achievement (based on rubric).
- S, D - Number and description of updated local curriculum guides.

See Appendix D for Federal Content Requirements
See Appendix E for Related State (OSBE) and Federal (NCLB) Goals

TECHNOLOGICAL LITERACY

Assist every student to become technologically literate.

Narrative

As the future workforce of our generation, our children will be required to know the basics of many computerized processes and systems to be successful in their respective endeavors. As educators, it is incumbent upon us to provide the basic skills necessary to function effectively in an ever-advancing technological world.

Objective A

Ensure delivery of technology education that is in conformance with Idaho Student Information Technology Standards and International Society for Technology in Education (ISTE) Standards for Students.

Actions

- S - Align Idaho Student Information Technology Standards (ISITS) and respective benchmarks with International Society for Technology in Education (ISTE) standards for students.
- S - Promote sound understanding of the nature and operation of technology systems as appropriate per grade level as outlined in the Idaho Student Information Technology Standards (ISITS).

Performance Measures

- S - Idaho Student Information Technology Standards (ISITS) are aligned with International Society for Technology in Education (ISTE) Student Standards.
- S - Include Idaho Student Information Technology Standards (ISITS) within the Courses of Study.

Data Preparation and Reporting

- S - Results of Students' demonstration of proficiency in the use of technology as appropriate to grade level benchmark(s) as outlined in International Society for Technology in Education (ISTE) and Idaho Student Information Technology Standards (ISITS), in the categories of:

  Basic operations and concepts;
  Social, ethical, and human issues;
  Technology productivity tools;
  Technology communications tools;
  Technology research tools;
  Technology problem-solving and decision-making tools.

See Appendix D for Federal Content Requirements
See Appendix E for Related State (OSBE) and Federal (NCLB) Goals

Objective B

Support learners with special needs and varied linguistic, cultural, ethnic and socio-economic backgrounds.

Actions

- S, D - Promote and provide support toward the use of assistive technologies for special needs students.
- S, D - Identify the education delivery needs of learners with varied linguistic, cultural, ethnic and socio-economic backgrounds.
- S, D - Provide optional education delivery methods to meet the needs of learners with varied linguistic, cultural, ethnic and socio-economic backgrounds.

Performance Measures

- ❑ S, D – Special needs students are meeting, and or exceeding, technological literacy standards, using assistive technologies when necessary.
- ❑ S, D - Education delivery needs of learners with varied linguistic, cultural, ethnic and socio-economic backgrounds have been identified.
- ❑ S, D - Optional education delivery methods to meet the needs of learners with varied linguistic, cultural, ethnic and socio-economic backgrounds are implemented.

Data Preparation and Reporting

- ☆ S, D - Provide a description of the assistive technologies available to special needs students and the percentage of special needs students meeting and or exceeding technological literacy standards.
- ☆ S, D - Education delivery needs of learners with varied linguistic, cultural, ethnic and socio-economic backgrounds have been identified.
- ☆ S, D - Optional education delivery methods to meet the needs of learners with varied linguistic, cultural, ethnic and socio-economic backgrounds are implemented.

See Appendix D for Federal Content Requirements
See Appendix E for Related State (OSBE) and Federal (NCLB) Goals

Objective C

Develop programs that prepare students for both entry-level jobs and postsecondary technical and academic opportunities in the field of technology.

Actions

- ❍ S - Assist the post-secondary institutions in the development and alignment of Professional Technical Education (PTE) programs.

Performance Measures

- ❑ S – Professional Technical Education (PTE) programs are developed, aligned and articulated with post-secondary institutions.

Data Preparation and Reporting

- ☆ S - Collect data on the number of Professional Technical Education (PTE) programs available and on the percentage of students participating in those programs.

See Appendix D for Federal Content Requirements
See Appendix E for Related State (OSBE) and Federal (NCLB) Goals

PROFESSIONAL DEVELOPMENT

Promote professional development in technology use that enhances the educational process.

Narrative

To achieve technology integration and technological literacy, we must look to professional development in technology use. Educators and administrators must be well versed in the application and applicability of technology in the classroom. The focus of professional development for educators and administrators must be that of how to use technology and when to use technology to ensure the education received by students will foster achievement and success.

Objective A

Encourage districts to develop policies and procedures that support the ongoing improvement of technology literacy and technology integration.

Actions

- S - Establish standards or implement ISTE standards regarding the professional development of educators on the subject of technology literacy and the process of technology integration in the schools.
- S, D - Provide guidelines for the development of district policies and procedures that address the professional development of educators on the subject of technology literacy and the subsequent process of technology integration in the schools.
- S - Establish timelines for districts to report the status of their respective planning and development activities regarding the improvement of teaching and administration on the subjects of technology literacy and technology integration.

Performance Measures

- S - Standards are established regarding the professional development of educators on the subjects of technology literacy and the process of technology integration in the schools.
- D - District policies and procedures that address the professional development of educators on the subjects of technology literacy and the process of technology in their respective schools are developed.
- S - Timelines for districts to report the status of their respective planning and development activities regarding the improvement of teaching and administration on the subjects of technology literacy and technology integration are established.

Data Preparation and Reporting

- S - Provide a copy of the established standards.
- S, D - Report the districts that:

  Have not yet started;

  Are in progress;

  Have completed but not implemented;

  Have implemented;

  Of those districts with implemented policies and procedures, include an assessment of progress regarding the impact the professional development policies and procedures have made on educators, using a rubric profile.
- S - Provide the established reporting timelines for districts to report the status and progress of their respective planning, development and implementation activities.

See Appendix D for Federal Content Requirements
See Appendix E for Related State (OSBE) and Federal (NCLB) Goals

Objective B

Identify and disseminate technology-based instructional practices.

Actions

- S, D - Develop database of technology-based instructional practices as a resource to other educators.
- S, D - Develop accessible delivery method of technology-based instructional practices as a resource to all educators.
- S, D - Develop method to track results of sharing technology-based instructional practices as compared with overall student achievement over a designated period.
- S, D - Write evaluation criteria to assess and make recommendations toward the improvement of technology-based instructional practices and the maximization of student learning and achievement.
- S, D - Provide resources for data collection, analysis, interpretation, application and subsequent communication.

Performance Measures

- S, D - Development of a database of technology-based instructional practices as a resource to all educators.
- S, D - Development of accessible delivery method of technology-based instructional practices as a resource to all educators.
- S, D - Development of method to track results of sharing technology-based instructional practices as compared with overall student achievement over a designated period.
- S, D - Evaluation criteria to assess and make recommendations toward the improvement of technology-based instructional practices and the maximization of student learning and achievement is available.
- S, D - Data, regarding the impact technology-based instructional practices are having on student learning and achievement, are collected, analyzed and interpreted. Assessments and recommendations are made and are communicated.

Data Preparation and Reporting

- S, D - Status and progress of technology-based instructional practices database development and implementation.
- S, D - Status and progress of technology-based instructional practices database access, to include districts that are using this resource and of those districts, how many have found it useful.
- S, D - Report comparison results of those educators applying the information provided in the technology-based instructional practices database with their respective students' achievement levels annually for the duration of this technology plan period. This assumes a baseline of statistical data (prior to the implementation of the technology-based instructional practices database) will need to be included for comparison purposes.
- S, D - Provide documentation on the evaluation criteria to assess and make recommendations toward the improvement of technology-based instructional practices and the maximization of student learning and achievement is available.
- S, D - Report interpreted results and those assessments and recommendations made based on evaluation criteria designed to identify instructional improvement and maximization of student learning and achievement.

See Appendix D for Federal Content Requirements
See Appendix E for Related State (OSBE) and Federal (NCLB) Goals

Objective C

Develop policies and procedures that improve district productivity and administrative processes.

Actions

- S, D - Develop policy that defines professional development to include administrators, technology coordinators, teachers, counselors, support staff, program faculty and state level leaders.
- S, D - Develop policy that emphasizes effective technology usage across the curriculum and in student assessment.
- S, D - Develop procedures to address unusual challenges, such as urban and rural settings and impoverished communities within districts.
- S, D - Develop policy and procedures that support aid for increased lead time for planning activities and exemplary technology usage in professional development e.g. virtual communities-of-practice.
- S, D - Develop policy and procedures that provide for technical training programs at all levels of professional development.

Performance Measures

- S, D - Policy defines professional development to include administrators, technology coordinators, teachers, counselors, support staff, program faculty and state level leaders.
- S, D - Policy emphasizes effective technology usage across the curriculum and in student assessment.
- S, D - Procedures address unusual challenges, such as urban and rural settings and impoverished communities within districts.
- S, D - Policy and procedures support aid for increased lead-time for planning activities and exemplary technology usage in professional development.
- S, D - Policy and procedures provide for technical training programs at all levels of professional development which result in regional technology centers, quality reviews and the adoption of digital resource(s) guidelines.

Data Preparation and Reporting

- S, D - Provide status and progress of the professional development definition policy. When completed, provide the policy in its entirety.
- S, D - Provide status and progress of the effective technology use policy. When completed, provide the policy in its entirety.
- S, D - Provide status and progress of the "unusual challenges" policy. When completed, provide the policy in its entirety.
- S, D - Provide status and progress of the support policy. When completed, provide the policy in its entirety.
- S, D - Provide status and progress of the technical training program policy and procedures. When completed, provide the policy in its entirety.

See Appendix D for Federal Content Requirements
See Appendix E for Related State (OSBE) and Federal (NCLB) Goals

COLLABORATION

Promote the collaboration of schools, libraries, community members, state agencies, organizations, business and industry, post-secondary institutions, and public virtual learning environments to meet the needs of all learners.

Narrative

Collaboration is an effective way to employ resources toward the achievement of any goal, in this case, five goals: Integration, Technological Literacy, Professional Development, Technology Systems and Assessment, Evaluation and Publication. By collaborating with the education community at large, as well as public, private and virtual entities, we leverage skills, best practices and the synergism created by a whole host of contributors working together.

Objective A

Create an environment that fosters meaningful collaboration between School Districts and Libraries (e.g. public, state, and universities).

Actions

- S, D - Provide Districts with guidance necessary to involve a librarian in their respective technology planning process.
- S, D - Provide technical support and or resources to connect libraries and schools via Telecommunications systems.
- S, D - Promote utilization of shared services among the libraries.

Performance Measures

- S, D - Number of districts that have a librarian on their respective district planning teams.
- S, D - Number of schools and libraries that are members of a regional library network.
- S, D - Number of districts that share services e.g.:

  Inter-Library loans are transacted,

  Districts use LiLI,

  Districts use shared catalogs and participate in virtual reference services.

Data Preparation and Reporting

Number and description of:

- ☆ S, D - Districts with a librarian on their respective district planning team.
- ☆ S, D - Schools, and libraries, which are members of a regional library network.
- ☆ S, D - Inter-Library loan transactions, districts using LiLI, and districts using shared catalogs and participating in virtual reference services.

See Appendix D for Federal Content Requirements
See Appendix E for Related State (OSBE) and Federal (NCLB) Goals

Objective B

Create an environment that fosters meaningful collaboration between School Districts and Community members (e.g. parents, patrons, citizens)

Actions

- S, D - Encourage Districts to involve a community member in their technology plan process.

- S, D - Provide guidance to Districts on offering after school program (i.e. community technology centers)
- S, D - Promote District offering of Adult Literacy service programs (GED, LEP)
- S, D - Provide technical resources necessary to offer accessibility to special needs community members.

Performance Measures

- S, D - Number of Districts that have a community member on their respective district planning teams.
- S, D - Number of Districts that offer after-school programs for community members.
- S, D - Number of Districts that offer adult literacy service programs.
- S, D - Number of Districts that serve special needs community members.

Data Preparation and Reporting

Number and description of:

- S, D - Districts that have a community member on their respective district planning teams.
- S, D - Districts that offer after-school programs for community members.
- S, D - Districts that offer adult literacy service programs.
- S, D - Districts that serve special needs members.

See Appendix D for Federal Content Requirements
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Objective C

Create an environment that fosters meaningful collaboration between School Districts, and State and Local Agencies (e.g. PTE, SDE, OSBE, Vo-Rehab, IF&G, H&W, Corrections, Federal, Legislature, City, County Law Enforcement)

Actions

- S, D - Guide Districts on how to involve other state and local entities in their technology planning process.
- S, D - Provide the technical environment to allow data to be shared among Districts and, state and local entities.
- S, D - Provide options for districts to offer teacher incentives, for those teachers that initiate collaborative activities with other districts, as well as state and local agencies.

Performance Measures

- S, D - Number of Districts that involve other state and local entities in their technology plan process.
- S, D - Number of Districts that share data with state and local entities.
- S, D - Number of Districts that provide options and offer teacher incentives, for those teachers that initiate collaborative activities with other districts, as well as state and local entities.

Data Preparation and Reporting

Number and description of:

- S, D - Districts involving other state and local agencies in their technology plan.
- S, D - District, State and Local Entities that share data.
- S, D - Districts providing incentives, financial or otherwise, to teachers who collaborate with other districts, as well as state and local entities.

See Appendix D for Federal Content Requirements
See Appendix E for Related State (OSBE) and Federal (NCLB) Goals

Objective D
Create an environment that fosters meaningful collaboration between School Districts and Organizations (e.g. PTA, service clubs, fraternities)

Actions

- S, D - Encourage Districts to involve service clubs in their technology planning process.
- S, D - Support Districts to collaborate with service clubs for fund raising and support to provide technology-focused.

  Scholarships;

  Instructional aides for special needs students;

  Assistive Technology issues/grants.
- S, D - Provide guidelines for Districts to work with service clubs to foster mentoring relationships between technology-oriented service club members and students.

Performance Measures

- S, D - Number of Districts that involve service clubs in their technology planning process.
- S, D - Number of Districts that work in partnership with service clubs for fund raising and support to provide technology-focused:

  Scholarships;

  Instructional aides for special needs students;

  Assistive Technology issues/grants.
- S, D - Number of Districts that work with service clubs to foster mentoring relationships between technology-oriented service club members and students.

Data Preparation and Reporting

Number and description of:

- S, D - Districts that have involved service clubs in their technology plan process.
- S, D - Financial contributions in support of technology by service organizations.
- S, D - Examples of mentoring relationships, in terms of, objectives and activities between technology-oriented mentors and students.

See Appendix D for Federal Content Requirements
See Appendix E for Related State (OSBE) and Federal (NCLB) Goals

Objective E
Create an environment that fosters meaningful collaboration between School Districts and, Business and Industry (e.g. industry, foundations, Chambers of Commerce)

Actions

- S, D - Encourage Districts to involve business and industry in their technology planning process.
- S, D - Support Districts to collaborate with business and industry for fund raising and support to provide technology-focused:

  Scholarships;

Instructional aides for special needs students.;

Assistive Technology issues/grants.

- S, D - Provide guidelines for Districts to work with business and industry to foster mentoring relationships between technology-oriented constituents and student.

Performance Measures

- S, D – Number of Districts that involve business and industry in their technology planning process.
- S, D - Number of Districts that work in partnership with business and industry for fund raising and support to provide technology-focused:

  Scholarships;

  Instructional aides for special needs students;

  Assistive Technology issues/grants.
- S, D - Number of Districts that work with business and industry to foster mentoring relationships between technology-oriented constituents and students.

Data Preparation and Reporting

Number and description of:

- S, D - Districts, which have involved business and industry in their technology, plan process.
- S, D - Financial contributions raised in support of technology by business and industry.
- S, D - Examples of mentoring relationships, in terms of, objectives and activities between technology-oriented mentors and students.

See Appendix D for Federal Content Requirements
See Appendix E for Related State (OSBE) and Federal (NCLB) Goals

Objective F

Create an environment that fosters meaningful collaboration between School Districts and Post-secondary institutions (e.g. public and private colleges, universities, technical schools)

Actions

- S, D - Encourage Districts to involve post-secondary institutions in their technology planning process.
- S, D - Support Districts to collaborate with post-secondary institutions to provide technology-focused:

  Teacher prep/in-service/pre-service;

  Professional development and evaluation;

  Graduate work;

  Grant writing

  Libraries
- S, D - Provide guidelines for Districts to work with post-secondary institutions to elicit facilitation and hosting activities between technology-oriented educators and students.

Performance Measures

- S, D - Number of Districts that involve post-secondary institutions in their technology planning process.
- S, D - Number of Districts that collaborate with post-secondary institutions to provide technology-focused:

  Teacher prep/in-service/pre-service;

Professional development and evaluation;

Graduate work;

Grant writing

Libraries

- S, D - Number of Districts that work with post-secondary institutions to elicit facilitation and hosting activities between technology-oriented educators and students.

Data Preparation and Reporting

Number and description of:

- S, D - Districts that have involved post-secondary institutions in their technology plan process.
- S, D - Districts that have collaborated with post-secondary institutions to provide technology-focused teacher education and professional development, graduate work, grant writing and libraries.
- S, D - Examples of facilitation and hosting activities between technology-oriented educators and students.

See Appendix D for Federal Content Requirements
See Appendix E for Related State (OSBE) and Federal (NCLB) Goals

Objective G

Create an environment that fosters meaningful collaboration between School Districts and with Public virtual learning environments (e.g. Idaho Digital Learning Academy, ARTEC).

Actions

- S, D - Encourage Districts to involve representatives of public virtual learning environments in their technology planning process.
- S, D - Support Districts to collaborate with public virtual learning environments representatives to provide accessible* technology-focused education:

  Distance learning;

  Coursework;

  School to work programs;

- S, D - Provide guidelines for Districts to work with post-secondary institutions to facilitate a standard data collection process of student data, to ensure proper tracking of educational accomplishments via a public virtual learning environment.

**In this context, the word "accessible" means, "to employ assistive technologies to ensure virtual learning environments are accessible to special needs students".*

Performance Measures

- S, D - Number of Districts that involve representatives of public virtual learning environments in their technology planning process.
- S, D - Number of Districts that collaborate with public virtual learning environments representatives to provide accessible* technology-focused education:

  Distance learning;

  Coursework;

  School to Work (ARTEC)

- ❑ S, D - Number of Districts that work with post-secondary institutions to facilitate a standard data collection process of student data, to ensure proper tracking of educational accomplishments via a public virtual learning environment.

  **In this context, the word "accessible" means, "to employ assistive technologies to ensure virtual learning environments are accessible to special needs students".*

Data Preparation and Reporting

Number and description of:

- ☆ S, D - Districts that involve representatives of public virtual learning environments in their technology planning process.
- ☆ S, D - Districts that collaborate with public virtual learning environments representatives to provide *accessible technology-focused education:

  Distance learning;

  Coursework;

  School to Work (ARTEC)

- ☆ S, D - Districts that work with representatives of public virtual learning environments to facilitate a standard data collection process of student data. Include data elements needed for proper tracking.

  **In this context, the word "accessible" means, "to employ assistive technologies to ensure virtual learning environments are accessible to special needs students".*

See Appendix D for Federal Content Requirements
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Objective H

Create an environment that fosters meaningful collaboration between School Districts and "Other" Schools (e.g. Private, charter, home schools)

Actions

- ❍ S, D - Encourage Districts to involve representatives of "Other" schools in their technology planning and assessment process.
- ❍ S, D - Promote Districts' sharing of student data and best practices and vice versa with "Other" schools, as well as hosting professional development activities.
- ❍ S, D - Support Districts to collaborate with "Other" schools to provide accessible* technology-focused education:

  Student training;

  Technology integration with student achievement;

- ❍ S, D - Provide guidelines for Districts to work with "Other" schools to facilitate a standard data collection process of student data, to ensure proper tracking of educational accomplishments via a "Other" Schools.

  **In this context, the word "accessible" means, "to employ assistive technologies to ensure virtual learning environments are accessible to special needs students".*

Performance Measures

- ❑ S, D - Number of Districts that involve representatives of "Other" schools in their technology planning and assessment process.

- S, D - Number of Districts that share student data and best practices and vice versa with "Other" schools, to include both entities hosting professional development activities.
- S, D - Number of Districts that collaborate with "Other" schools to provide accessible* technology-focused education:

  Student training;

  Technology integration with student achievement;
- S, D - Number of Districts that work with "Other" schools to facilitate a standard data collection process of student data, to ensure proper tracking of educational accomplishments via a "Other" Schools.

**In this context, the word "accessible" means, "to employ assistive technologies to ensure virtual learning environments are accessible to special needs students".*

Data Preparation and Reporting

Number and description of:

- ☆ S, D - Districts that involve representatives of "Other" schools in their technology planning and assessment process.
- ☆ S, D - Districts' that share student data and best practices and vice versa with "Other" schools, as well as the Districts that host professional development activities.
- ☆ S, D - Districts that collaborate with "Other" schools to provide *accessible technology-focused education:
  Student training;
  Technology integration with student achievement;
- ☆ S, D - Districts that work with "Other" schools to facilitate a standard data collection process of student data, to ensure proper tracking of educational accomplishments via a "Other" Schools.*In this context, the word "accessible" means, "to employ assistive technologies to ensure virtual learning environments are accessible to special needs students".

See Appendix D for Federal Content Requirements
See Appendix E for Related State (OSBE) and Federal (NCLB) Goals

TECHNOLOGY SYSTEMS

Create and maintain compatible and secure technology systems that enhance the efficient operation of schools.

Narrative

Technology systems are the operational backbone of the education process. Technology systems provide the means necessary to communicate, educate, inform, collaborate, share, transfer, access and manage data, processes and applications regarding students, teachers, administrators, curriculum, buildings, districts, etc. Technology systems that foster high productivity and utility are necessary to support effective education and administration; which in turn, promote student academic achievement.

Objective A

Ensure compatibility of statewide technology systems.

Actions

- S - Create and maintain data compatibility standards.
- S - Create and maintain hardware and software compatibility standards.
- S - Develop standards for technology acquisition e.g. firmware, middleware, hardware and software.
- S - Develop access standards for distance and virtual learning resources, to include the employment of assistive technology.
- S - Based on CIPA guidelines for Internet access, develop standards for Internet access.
- S - Based on section 508 of the Rehabilitation Act, develop standards on the employment and application of assistive technologies.

Performance Measures

- S - Data compatibility standards are created and maintained.
- S - Hardware and software compatibility standards are created and maintained.
- S - Standards for technology acquisition e.g. firmware, middleware, hardware and software are developed and maintained.
- S - Access standards for distance and virtual learning resources, to include the employment of assistive technology are developed and maintained.
- S - Based on CIPA guidelines for Internet access, standards for Internet access are developed and maintained.
- S - Based on section 508 of the Rehabilitation Act, standards for the employment and application of assistive technologies are developed and maintained.

Data Preparation and Reporting

- S - Provide status and progress of the data compatibility standards. When completed, provide assessment accordingly.
- S - Provide status and progress of the hardware and software compatibility standards. When completed, provide assessment accordingly.
- S - Provide status and progress of the technology acquisition e.g. firmware, middleware, hardware and software compatibility standards. When completed, provide assessment accordingly.

- ☆ S - Provide status and progress of the distance and virtual learning resources access standards. When completed, provide assessment accordingly.
- ☆ S - Provide status and progress of the standards for Internet access. When completed, provide assessment accordingly.
- ☆ S - Provide status and progress of the standards for assistive technology employment and application, when completed, provide assessment accordingly.

See Appendix D for Federal Content Requirements
See Appendix E for Related State (OSBE) and Federal (NCLB) Goals

Objective B
Provide a statewide network infrastructure (routers, bridges, repeaters, optical fiber, cable, wireless, WiFi, etc.) that supports inter-connectivity and intra-connectivity.

Actions

- ❍ S - Participate in the creation and implementation of a state of Idaho-based communications network that will provide statewide connectivity for all public entities (e.g. IDANET).
- ❍ S - Participate in the creation and implementation of a University-based network that will provide statewide connectivity for schools and private entities (e.g. EDUNET)
- ❍ S, D - To facilitate the creation of EDUNET and for general standardization and consolidation to ensure cost-savings, survey technology use in terms of:

  Service and or product: cost, vendor, description, application;

  Which respective ports are blocked;

  Who controls the respective network;

  What firewall products are in use; etc.

Performance Measures

- ❑ S - A statewide communications network is created and implemented.
- ❑ S - A statewide university-based connectivity network is created and implemented.
- ❑ S, D - Statewide technology use is surveyed and documented accordingly.

Data Preparation and Reporting

- ☆ S - Report the status and progress of the creation and implementation of IDANET. When completed, provide a description of the services provided, note any areas of the state of Idaho that not able to connect to IDANET, note the number of entities connected to IDANET, include information about total implementation costs and projected annual maintenance costs.
- ☆ S - Report the status and progress of the creation and implementation of EDUNET. When completed, provide a description of the services provided, note any areas of the state of Idaho that are not able to connect to EDUNET, note the number of entities, private and public, connected to EDUNET, include information about total implementation costs and projected annual maintenance costs, as well as usage revenues from private users.
- ☆ S, D - Report the status and progress of the survey. If complete, report the results of the survey by technology use category, including the supporting data e.g. service or product: cost, vendor, description, application; blocked ports, network controls, firewalls, etc.

See Appendix D for Federal Content Requirements
See Appendix E for Related State (OSBE) and Federal (NCLB) Goals

Objective C
Provide statewide curriculum management and student data management systems.

Actions

- S - Provide a curriculum management system to align curriculum with state standards, local curriculum, etc.
- S - Provide a statewide student data management system.

Performance Measures

- S - A curriculum management system to align curriculum with state standards, local curriculum, etc. is implemented
- S - A statewide student data management system is implemented.

Data Preparation and Reporting

- ☆ S - Report status and progress of the curriculum management system implementation process. When implementation is complete, provide an evaluation of the effectiveness and level of utility of the system implemented.
- ☆ S - Report status and progress of the student data management system implementation process. When implementation is complete, provide an evaluation of the effectiveness and level of utility of the system implemented.

See Appendix D for Federal Content Requirements
See Appendix E for Related State (OSBE) and Federal (NCLB) Goals

Objective D
Secure the use of technology to prevent unauthorized access and to promote safe access.

Actions

- S, D - Promote regular updates in virus protection/firewall software.
- S, D - Promote the utilization of Internet firewalls (2-way), proxy servers and blocking software.
- S, D - Promote best practices to ensure the security of district computer networks that address the:

  Prevention of unauthorized access to business and student record;

  Maintenance of confidentiality of information;

  Employment of hardware and software security measures;

  Use of login scripts, etc.
- S, D - Restriction of Internet sites deemed unsuitable by CIPA guidelines
- S, D - Comply with CIPA legislation i.e. promote CIPA awareness of legislation and federal requirements.

Performance Measures

- S, D - Number of districts that use Virus protection/firewall software/hardware.
- S, D - Number of districts that use an Internet firewalls (2-way), proxy servers and blocking software.
- S, D - Best practices are applied by the districts and the state to ensure the security of district computer networks, to include:

  Prevention of unauthorized access to business and student record;

Maintenance of confidentiality of information;

Employment of hardware and software security measures;

Use of login scripts, etc.

- S, D - Number of districts that restrict Internet sites deemed unsuitable by CIPA guidelines and number of districts that have CIPA certification.

Data Preparation and Reporting

- ☆ S, D - Provide date/time/procedural information on the scheduled updates to virus protection/firewall software.
- ☆ S, D - Provide descriptive information of the types of Internet firewalls (2-way), proxy servers and blocking software promoted by the state and employed by the districts and the state.
- ☆ S, D - Provide a synopsis of the best practices used by the state and the districts that ensure the security of district computer networks address the:

  Prevention of unauthorized access to business and student record;

  Maintenance of confidentiality of information;

  Employment of hardware and software security measures;

  Use of login scripts, etc.
- ☆ S, D - Provide the number of districts that restrict Internet sites deemed unsuitable by CIPA guidelines and number of districts that have CIPA certification.

See Appendix D for Federal Content Requirements
See Appendix E for Related State (OSBE) and Federal (NCLB) Goals

Objective E
Provide cost-effective means to acquire, maintain and access technology e.g. software, hardware, networks, etc.

Actions

- S - Create, maintain and disseminate a select vendor list, to include Internet links, when available.
- S - Create and maintain a select product list, to include Internet links, when available.

Performance Measures

- S - A select vendor list is created, maintained and disseminated, including Internet links, when available.
- S - A select product list is created, maintained and disseminated, including Internet links, when available.

Data Preparation and Reporting

- ☆ S - Create, maintain and disseminate a select vendor list, to include Internet links, when available.
- ☆ S - Create and maintain a select (or brand) product, to include Internet links, when available.

See Appendix D for Federal Content Requirements
See Appendix E for Related State (OSBE) and Federal (NCLB) Goals

Objective F
Provide network administration services, maintenance and support.

Actions

- S, D - Provide support to rural and remote districts' networking and telecommunications infrastructures.
- S, D - Provide guidelines for appropriate courses and other learning opportunities for students to engage in the: installation, maintenance and support of technology.

Performance Measures

- S, D - Resources to support rural and remote districts' networking and telecommunications infrastructures are provided
- S, D - Guidelines for appropriate courses and other learning opportunities for students to engage in the: installation, maintenance and support of technology, are provided.

Data Preparation and Reporting

- S, D - Report the number of districts using the resources. Include the context of the support provided.
- S, D - Report the number of districts employing student "tech support" and provide the respective courses and learning opportunities. Include the districts not employing student "tech support" and provide justification accordingly.

See Appendix D for Federal Content Requirements
See Appendix E for Related State (OSBE) and Federal (NCLB) Goals

ASSESSMENT, EVALUATION AND PUBLICATION

Assess, evaluate and publicize the effects of technology use by educators and students toward student learning and achievement.

Narrative

The cycle of performance, assessment, evaluation and publication is the way in which we effectively measure actual against targeted performance i.e. compare the "action" with the "performance measure" and determine the level of success. An evaluation will tell us if we tasked ourselves with the correct actions in terms of addressing the essence of the respective goal and objectives. Publicizing our results will provide a forum of input and commentary necessary to ensure we acknowledge trend changes in technology, education and business and allows us to refine the Statewide Plan for Technology in Idaho accordingly.

Objective A

Provide an annual assessment and evaluation of the use of technology to enhance student learning and achievement.

Actions

- S, D - Develop a three-year K-12 statewide technology plan and assess the results annually.
- S - Develop metrics to evaluate the use of the statewide K-12 technology plan on enhancing student learning and achievement, using the report information provided for each goal and respective objectives.

Performance Measures

- S, D - Three-year statewide technology plan is developed and the results of which are reviewed annually.
- S - Metrics are developed that evaluate the use of the statewide K-12 technology plan on enhancing student learning and achievement, using the report information provided for each goal and respective objectives.

Data Preparation and Reporting

- ☆ S, D- Provide status and progress on the development and modification of the three-year statewide K-12 technology plan. When completed, provide an assessment of the action plans developed, the resources assigned and the status of the deliverables of each action plan.
- ☆ S - Provide an evaluation of the statewide technology plan in terms of its impact on student learning and student achievement.

See Appendix D for Federal Content Requirements
See Appendix E for Related State (OSBE) and Federal (NCLB) Goals

Objective B

Publicize the use of technology to enhance student learning and achievement.

Actions

- S, D - Publish the results of the annual assessment performed on the statewide K-12 technology plan .
- S - Receive feedback and commentary from public forums to ensure public participation and involvement.

Performance Measures

- S,D - Results of the annual assessment of the statewide K-12 technology plan are published.

- S - Feedback and commentary received from public forums are evaluated and applied as enhancements to the statewide K-12 technology plan.

Data Preparation and Reporting

- ☆ S, D - Provide the communication methods used to disseminate the results of the statewide K-12 technology plan and include the intended audience.
- ☆ S - Categorize the public commentary and note where and how it was applied to the statewide K-12 technology plan.

See Appendix D for Federal Content Requirements
See Appendix E for Related State (OSBE) and Federal (NCLB) Goals

APPENDICES

Appendix A: Idaho Council for Technology in Learning

Appendix B: Advisory Team

Appendix C: No Child Left Behind

Appendix D: Federal Content Requirements

Appendix E: Related State (OSBE) and Federal (NCLB) Goals

Appendix F: Glossary

APPENDIX A

IDAHO COUNCIL FOR TECHNOLOGY IN IDAHO

Melvin Richardson, Senator, **ICTL Chair**
Bill Leaf, Cascade School District, ICTL Sub Chair, Public Education Information Committee **(PEITC) Chair**
Ann Joslin, Idaho State Library, Higher Education Information Technology **(HEITC)** Chair
Allen Andersen, Representative
Bert Marley, Senator
Charles Ruch, Boise University President
Elizabeth Criner, Veritas Advisors
Gary Stivers, Office of the State Board of Education Executive Director
Karen Vauk, Executive Director and Manager of Community and Academic Relations, Micron Technology
Marilyn Howard, Superintendent of Public Instruction
Paula Conley, Public Education Information Technology Committee Member
Vern Newby, Local School Board Member

HIGHER EDUCATION INFORMATION TECHNOLOGY COMMITTEE

Ann Joslin, Idaho State Library, **HEITC Chair**
Carmen Rahm, Lewis-Clark State College
Christine Brady, Idaho State Historical Society
Dave O'Neill, Boise State University
Gens Johnson, KUID Idaho Public Television
Glenn Wilde, University of Idaho
Monti Pittman, Idaho Division of Professional Technical Education
Nancy Szofran, Office of the State Board of Education,
Randy Bow, Idaho School for the Deaf and the Blind
Terry Lay, Idaho State University

PUBLIC EDUCATION INFORMATION TECHNOLOGY COMMITTEE

Bill Leaf, Cascade School District, **Chair**, Sub Chair ICTL
Carolyn Mauer, State Department of Education, ICTL Subcommittee Advisor
Christopher Gibson, Jerome School District
Deb McGrath, Kuna Middle School
Karen Ganske, Nampa Librarian
Paula Conley, Coeur d'Alene School District, ICTL Board Member
Pete Black, Pocatello School District 25
Ray Mikelson, Lake City High School
Vickie Chandler, Vocational Education Public School Teacher

APPENDIX B

ADVISORY TEAM

In developing this draft document, two-day meetings were held in Boise on three different occasions. In addition to the meetings, participants continued discussions and revisions of the draft documents on-line. The following individuals had the opportunity to provide input during the planning and development meetings held in November 2002, March 2003, May 2003 and August 2003.

Advisors

Angel Ramos, Idaho School for the Deaf and the Blind
Ann Joslin, Idaho State Library
Betsy Goeltz, Blackfoot School District
Bill Leaf, Cascade School District
Bill Rasmussen, Pocatello School District
Bob England, Pocatello School District
Bob Sobotta Jr., Lewis-Clark State College
Bob Sobotta, Roman Catholic Diocese of Boise
Carol Williams, Soda Springs School District
Carolyn Thorsen, Boise State University
Christopher Gibson, Jerome School District
Cliff Green, Idaho School Boards Association
Cliff Swanson, Troy School District
Craig Lannigan, Lewiston School District
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Dave Mecham, Firth School District
Dave O'Neill, Boise State University
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APPENDIX C

NO CHILD LEFT BEHIND

From the "No Child Left Behind" overview:

On Jan. 8, 2002, President Bush signed into law the No Child Left Behind Act of 2001 (NCLB). This new law represents his education reform plan and contains the most sweeping changes to the Elementary and Secondary Education Act (ESEA) since it was enacted in 1965. It changes the federal government's role in kindergarten-through-grade-12 education by asking America's schools to describe their success in terms of what each student accomplishes. The act contains the President's four basic education reform principles: stronger accountability for results, increased flexibility and local control, expanded options for parents, and an emphasis on teaching methods that have been proven to work.

An "accountable" education system involves several critical steps:

- States create their own standards for what a child should know and learn for all grades. Standards must be developed in math and reading immediately. Standards must also be developed for science by the 2005-06 school year.
- With standards in place, states must test every student's progress toward those standards by using tests that are aligned with the standards. Beginning in the 2002-03 school year, schools must administer tests in each of three grade spans: grades 3-5, grades 6-9, and grades 10-12 in all schools. Beginning in the 2005-06 school year, tests must be administered every year in grades 3 through 8 in math and reading. Beginning in the 2007-08 school year, science achievement must also be tested.
- Each state, school district and school will be expected to make adequate yearly progress toward meeting state standards. This progress will be measured for all students by sorting test results for students who are economically disadvantaged, from racial or ethnic minority groups, have disabilities, or have limited English proficiency.
- School and district performance will be publicly reported in district and state report cards. Individual school results will be on the district report cards.
- If the district or school continually fails to make adequate progress toward the standards, then they will be held accountable.

The U.S. Department of Education wants to be a partner with states and school districts, and a resource for families and community members. If you have additional questions about No Child Left Behind, we encourage you to visit this website frequently. Also, visit www.ed.gov for more detailed information about the legislation.

No Child LEFT BEHIND

Web Source: www.nochildleftbehind.gov/next/overview/index.html

APPENDIX D

FEDERAL CONTENT REQUIREMENTS

Integration

OBJECTIVE A

- Integration of technology with curricula and instruction
- Strategies for improving academic achievement, technology integration
- Technical assistance
- Technology resources and systems

OBJECTIVE B

- Innovative delivery strategies
- Integration of technology with curricula and instruction
- Professional and curricular development
- Strategies for improving academic achievement, technology integration
- Technical assistance
- Technology resources and systems

OBJECTIVE C

- Integration of technology with curricula and instruction
- Strategies for improving academic achievement, technology integration
- Technical assistance
- Technology resources and systems

Technological Literacy

OBJECTIVE A

- Innovate delivery strategies
- Integration of technology with curricula and instruction
- Strategies for improving academic achievement, technology integration

OBJECTIVE B

- Innovative delivery strategies
- Strategies for improving academic achievement, technology integration
- Technical assistance
- Technology resources and systems

OBJECTIVE C

- Innovative delivery strategies
- Strategies for improving academic achievement, technology integration
- Technical assistance
- Technology resources and systems

Professional Development

OBJECTIVE A

- Strategies for improving academic achievement, technology integration
- Integration of technology with curricula and instruction

OBJECTIVE B

- Public and private support § Strategies for parental involvement
- Strategies for improving academic achievement, technology integration

Collaboration

OBJECTIVE A

- Innovative delivery strategies

- Public and private support

OBJECTIVE B

- Strategies for improving academic achievement, technology integration
- Integration of technology with curricula and instruction
- Public and private support

OBJECTIVE C

- Strategies for improving academic achievement, technology integration
- Integration of technology with curricula and instruction
- Public and private support

OBJECTIVE D

- Strategies for improving academic achievement, technology integration
- Integration of technology with curricula and instruction

OBJECTIVE E

- Strategies for improving academic achievement, technology integration
- Integration of technology with curricula and instruction

OBJECTIVE F

- Strategies for improving academic achievement, technology integration
- Integration of technology with curricula and instruction
- Innovative delivery strategies
- Teacher incentives
- Competitive grant evaluation

OBJECTIVE G

- Strategies for improving academic achievement, technology integration
- Integration of technology with curricula and instruction
- Innovative delivery strategy

OBJECTIVE H

- Strategies for improving academic achievement, technology integration
- Integration of technology with curricula and instruction

Technology Systems

OBJECTIVE A

- Children's Internet Protection Act
- Technology resources and systems
- Innovative delivery strategies
- Steps to increase accessibility

OBJECTIVE B

- Strategies for improving academic achievement, technology integration
- Innovative delivery strategies
- Steps to increase accessibility

OBJECTIVE C

- Strategies for improving academic achievement, technology integration
- Innovative delivery strategies
- Steps to increase accessibility

OBJECTIVE D

- Children's Internet Protection Act
- Strategies for parental involvement
- Technology resources and systems

- Innovative delivery strategies

OBJECTIVE E

- Technology resources and systems
- Innovative delivery strategies
- Steps to increase accessibility

OBJECTIVE F

- Strategies for improving academic achievement, technology integration
- Integration of technology with curricula and instruction
- Innovative delivery strategies
- Technology resources and systems

Assessment, Evaluation and Publication

OBJECTIVE A

- Strategies for improving academic achievement, technology integration
- Technology resources and systems

OBJECTIVE B

- Public and private support
- Strategies for parental involvement
- Strategies for improving academic achievement, technology integration

APPENDIX E

RELATED STATE (OSBE) AND FEDERAL (NCLB) GOALS

Integration

OBJECTIVE A	OBJECTIVE B	OBJECTIVE C
NCLB	**NCLB**	**NCLB**
1. Academic Achievement	1. Academic Achievement	1. Academic Achievement
2. Technological Literacy	2. Technological Literacy	2. Technological Literacy
3. Technology Integration	3. Technology Integration	3. Technology Integration
OSBE	**OSBE**	**OSBE**
1. Quality	1. Quality	1. Quality
2. Access	3. Relevance	3. Relevance
3. Relevance	4. Efficiency	4. Efficiency
4. Efficiency		

Technological Literacy

OBJECTIVE A	OBJECTIVE B	OBJECTIVE C
NCLB	**NCLB**	**NCLB**
1. Academic Achievement	1. Academic Achievement	1. Academic Achievement
2. Technological Literacy	2. Technological Literacy	2. Technological Literacy
3. Technology Integration	3. Technology Integration	3. Technology Integration
OSBE	**OSBE**	**OSBE**
1. Quality	1. Quality	1. Quality
2. Access	2. Access	3. Relevance
4. Efficiency	3. Relevance	4. Efficiency

Professional Development

OBJECTIVE A	OBJECTIVE B
NCLB	**NCLB**
1. Academic Achievement	1. Academic Achievement
2. Technological Literacy	2. Technological Literacy
3. Technology Integration	3. Technology Integration
OSBE	**OSBE**
1. Quality	1. Quality
2. Access	2. Access
3. Relevance	3. Relevance
4. Efficiency	4. Efficiency

Collaboration

OBJECTIVE A	OBJECTIVE B	OBJECTIVE C
NCLB	**NCLB**	**NCLB**
2. Technological Literacy	1. Academic Achievement	1. Academic Achievement
3. Technology Integration	2. Technological Literacy	2. Technological Literacy
	3. Technology Integration	3. Technology Integration

Collaboration

OBJECTIVE A	OBJECTIVE B	OBJECTIVE C
OSBE 2. Access 3. Relevance 4. Efficiency	**OSBE** 1. Quality 3. Relevance 4. Efficiency	**OSBE** 1. Quality 3. Relevance 4. Efficiency
OBJECTIVE D	**OBJECTIVE E**	**OBJECTIVE F**
NCLB 1. Academic Achievement 2. Technological Literacy 3. Technology Integration	**NCLB** 1. Academic Achievement 2. Technological Literacy 3. Technology Integration	**NCLB** 1. Academic Achievement 2. Technological Literacy 3. Technology Integration
OSBE 1. Quality 3. Relevance 4. Efficiency	**OSBE** 1. Quality 3. Relevance 4. Efficiency	**OSBE** 1. Quality 2. Access 3. Relevance 4. Efficiency
OBJECTIVE G	**OBJECTIVE H**	
NCLB 2. Technological Literacy 3. Technology Integration	**NCLB** 1. Academic Achievement 2. Technological Literacy 3. Technology Integration	
OSBE 1. Quality 3. Relevance 4. Efficiency	**OSBE** 1. Quality 3. Relevance 4. Efficiency	

Technology Systems

OBJECTIVE A	OBJECTIVE B	OBJECTIVE C
NCLB 1. Academic Achievement 2. Technological Literacy 3. Technology Integration	**NCLB** 1. Academic Achievement 2. Technological Literacy 3. Technology Integration	**NCLB** 1. Academic Achievement 2. Technological Literacy 3. Technology Integration
OSBE 1. Quality 2. Access 3. Relevance 4. Efficiency	**OSBE** 1. Quality 2. Access 3. Relevance 4. Efficiency	**OSBE** 1. Quality 3. Relevance 4. Efficiency
OBJECTIVE D	**OBJECTIVE E**	**OBJECTIVE F**
NCLB 1. Academic Achievement 2. Technological Literacy 3. Technology Integration	**NCLB** 3. Technology Integration	**NCLB** 1. Academic Achievement 2. Technological Literacy 3. Technology Integration

Technology Systems		
OSBE 1. Quality 2. Access 3. Relevance 4. Efficiency	OSBE 1. Quality 2. Access 3. Relevance 4. Efficiency	OSBE 1. Quality 3. Relevance 4. Efficiency

Assessment Evaluation and Publication	
OBJECTIVE A	OBJECTIVE B
NCLB 1. Academic Achievement 2. Technological Literacy 3. Technology Integration	NCLB 1. Academic Achievement 2. Technological Literacy 3. Technology Integration
OSBE 1. Quality 2. Access 3. Relevance 4. Efficiency	OSBE 1. Quality 2. Access 3. Relevance 4. Efficiency

APPENDIX F

GLOSSARY

Assistive Technology Any item, piece of equipment or product system, whether acquired commercially off the shelf, modified, or customized that is used to increase, maintain, or improve the functional capabilities of individuals with disabilities.

Authentication This is some process of proving the identity of a computer or computer user. For users, it generally involves a user name and password. For computers, they usually pass a code that identifies that they are part of a network.

Bandwidth The range of transmission frequencies that a network can use. The greater the band-width, the greater the amount of information that can travel on the network at one time.

Bridge A device that connects a one local area network (LAN) to another local area network and that the same protocol.

You can envision a bridge as being a device that decides whether a message from your computer to another computer is going remain on the local area network that your computer is connected to, or be sent over to the other local area network if the computer you're sending the message to is connected there. A bridge only knows about the two local area networks that it is connected between.

Broadband The wide range of transmission frequencies that can be divided into separate channels to allow for the simultaneous transfer of information at different times and at different speeds.

Cable Broadband Communications service provided by local cable companies. This service uses existing cable television wiring to connect computers and/or networks to the Internet. The speed of this service ranges between 400Kbps to 27Mbps.

The normal bandwidth speeds are between 400Kbps and 800Kbps.

Curriculum Management Software (CM) A collection of software programs and databases that organizes curriculum with it's matching goals, objectives, resources, and standards.

Database A collection of data arranged in a logical manner for ease and speed of search and retrieval of information.

Digitized white boards A device that electronically captures information from input in the form of writing and drawing. These devices are slowly replacing the Blackboard and Whiteboard that once were the focus points of classrooms. Digitized white boards can capture the information written on them and save it on a computer or other storage devices for use later by teachers and students.

Directory Services A logical structure of objects that provides a unified view and way

	to manage all objects on a network. Network Administrators can use this technology to manage networks.
Electronic note pads	Lightweight, hand-held computer designed for use as a personal organizer for taking notes relying on special hardware and pen-based software to enable the recognition of handwritten input which is entered on the surface of a liquid crystal display screen.
Filtering	The process of examining each packet of information entering a network and discarding packets that no not meet a predetermined set of criteria.
Firewall	A device placed between a private network and the Internet to prevent unwanted network traffic from passing in either direction. Most firewalls generally support packet-filtering, proprietary application filtering, and some proxy functions.
Firmware	Software that is embedded onto a piece of hardware of a device, usually in permanent memory, to control the hardware of the device. Generally, firmware can be upgraded to get additional functionality or performance of the device.
Global Positioning Systems (GPS)	A means of determining location on the surface of the Earth by using a system of satellites that orbit the Earth broadcasting the time via radio signals based on an internal atomic clock. The device measures the time it took to receive multiple signals from satellites, performs a calculation and determines where it is on the surface of the Earth.
Hardware	The physical components of a computer system, such as the circuitry, keyboard, mouse, and display.
Inter-connectivity	The overall logical structure and connections of networks and devices at the enterprise level using a common protocol such as TCP/IP.
Intra-connectivity	The overall logical structure and connections of networks and devices at the local level using a common protocol such as TCP/IP.
Local Area Network (LAN)	The connection of computers, peripherals, and devices in a limited area, usually less than two miles, that allows users and devices to communicate and share information.
Login script	A file usually run when a user logs into a network that sets the user's environment, connects their network drives to specific locations to specific servers, and connects specific printers.
Middleware	The software used to connect an application to a network. An example of a middleware application would be a network directory service or authentication service.
Network	A group of interconnected computers, peripherals and devices communicating via physical cable, or wireless, capable of

transferring information.

Optical Fiber A transmission alternative to copper wire that uses light pulses to transmit information. A single strand of optical fiber can carry thousands of different frequencies simultaneously thus providing an almost unlimited amount of bandwidth.

Personal Digital Assistants (PDAs) Lightweight, hand-held devices designed for use as a personal organizer with communications capabilities. A typical PDA has no keyboard, relying instead on special hardware and pen-based computer software to enable the recognition of handwritten input, which is entered on the surface of a liquid crystal display screen. PDAs are used as notepads, appointment schedulers, and wireless communicators for sending and receiving data, faxes, and electronic-mail messages.

Presentation software Software used to organize and present information in a multimedia format.

Protocol Rules governing transmitting and receiving data between computers and terminals.

Proxy The use of one computer or device to make requests for another computer or device, or group of computers or devices over a network. Proxies can be used for Internet security, controlling connections, and be used to pass data between a network and Internet. Proxy servers can speed up access to the Internet by reducing the number of requests and responses. When a computer needs an object from the Internet, it makes a request to a Proxy server for the object along with the address of where to get it. The Proxy server makes the request to the Internet web server, downloads the page and objects, keeps a copy and passes the requested page to the computer. The next computer that makes the same request is then given the copy instead of having to go out to the Internet and re-download it.

Repeater A device used to repeat a signal to send it further away or to many more devices.

Router A device that connects one network to another network. A routing device can pass information from one network to an adjacent network or contain routing tables to “know” where the other networks are.

Software The programs that run on computer hardware that help turn data into information. This can include operating systems, office suites, games, and Web browsers.

Spreadsheet software This is a type of computer program that displays a group of cells (a 2D graph pattern) and allows for easy mathematical operations and relationships between the cells. The first major spreadsheet was Lotus 1-2-3. Today's most popular spreadsheet is Microsoft Excel.

Student Data Management software	A collection of software and databases that collect, store, and provide information about students and their performance within the educational system.
Telecommunications systems	Communication using a combination of medias (wire, fiber, or wireless) in either a data infrastructure such as the Internet or telephone infrastructure - either land-line or mobile.
Video streaming	The technology that allows for the ability to play audio and video as it is being downloaded to the device which is viewing it.
Virtual Learning Environments	An organized system of delivering educational information and materials, and interacting with students located at various geographically separate sites through a variety of technology and mediums.
Wireless	Voice, data, or video communications without the use of connecting wires.
Word Processor Software	Software used to create, edit, and format documents. Common Word Processing software found today are Word, WordPerfect, and Word Star.